

REMARKS

Applicants have carefully reviewed the Examiner's Final Office Action dated April 7, 2004. Claims 1, 4-11, 13-26 and new claims 27-39 are currently pending. Claims 16-25 are withdrawn. No claims have been allowed.

With respect to priority, Applicants reiterate their belief that the effective filing date is 2-11-1999, the date of the Korean application. Applicants enclose a copy of the translation with this filing.

Claims 1, 4-11, 13-15 and 26 are rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse this rejection.

Claim 1 has been amended to remove those limitations that the Examiner does not believe are in the specification. The claim as it reads now is fully supported by the language of the specification. In particular, Examples 1 and 2 delineate the process recited in claim 1. Reconsideration and withdrawal of the rejection are therefore requested.

Claims 1-15 and 26 are rejected under 35 USC 112, second paragraph as being indefinite for failing to point out and distinctly claim the subject matter which the applicants regard as the invention. Applicants respectfully traverse this rejection.

Claim 1 has been amended to more particularly recite the metes and bounds of the invention. Additionally, new claims 27-39 further define the invention in accordance with the specification. Therefore, reconsideration and withdrawal of the rejection are requested.

Claims 1, 4-6, 8, 10, 11, 13-15 and 26 remain rejected under 35 USC 102(b) as being anticipated by Alloli. This rejection is respectfully traversed.

Alloli does not teach the long-term culture and subculturing steps inherent to the instant invention. It is clearly necessary, as outlined in the instant specification, to culture the EG cells for a period of 7-10 days. By contrast, the PGCs of the Alloli reference are never cultured for a period of more than 4 days. This limitation is in Claim 1 as well, where it is recited "for a period of time sufficient to obtain EG cell colonies". Reconsideration and withdrawal of the rejection are therefore requested.

Claims 1, 4-11, 13-15 and 26 remain rejected under 35 USC 102(b) as being anticipated by Chang (1995). This rejection is respectfully traversed.

Claim 1 has been amended and new claims 27-39 have been added to further define the invention in accordance with the specification. Again, Chang does not teach the extended culturing and subculturing steps of the instant invention. The Examiner concedes that Chang only teaches maintaining the cultures for a period of "at least four days", but in no event does this reference teach maintaining the cultures beyond five days. Additionally, subculturing the PGC cells with GR stroma

cells as feeder cells is not within the scope of the present invention. For these reasons, reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1, 4-11, 13-15 and 26 remain rejected under 35 USC 102(b) as being anticipated by Chang (1997). This rejection is respectfully traversed.

Chang teaches the culturing of PGCs, but not of EG cells. Applicants respectfully disagree with the Examiner's assertion that the gPGCs of Chang are EG cells. It is well known to those skilled in the art that PGCs injected to recipient are also able to provide germline transmission. Moreover, it is evident that the PGCs of Chang cannot be EG cells but instead are PGCs, in view of the fact that the long-term culture and subculture necessary to obtain the EG cell line are not performed by Chang. Chang cultured PGCs only for 5 days, which is considered to be primary culturing, as described on page 496, 1st paragraph in "RESULTS". For these reasons, and in view of the amendments to claim 1 and the newly added claims 27-39, reconsideration and withdrawal of the rejection are requested.

Claims 1, 4-6, 8, 10, 11, 13-15, and 26 remain rejected under 35 USC 102(e) as being anticipated by Petite. This rejection is respectfully traversed.

As described previously, the effective filing date of the claimed invention is 2-11-1999, the filing date of Korean Patent Application. Accordingly, the withdrawal of this rejection is respectfully requested.

In addition, this rejection should be withdrawn for the reasons indicated hereunder.

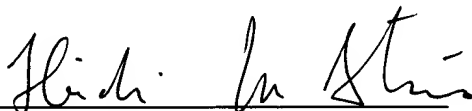
The Examiner states that Petite taught the maintenance of PGCs in culture for 5 days by Petite. However, it is generally appreciated by one skilled in the art that the 5-day culture is only a primary culture. By contrast, the present invention provides an established EG cell line resulting from long-term culturing.

Furthermore, even though Petite discusses that cultured PGCs could develop an ESC phenotype as shown by anti-SSEA-1 staining and cell appearance results, it was not demonstrated that PGCs cultured are pluripotent and capable of producing a chimeric avian. Accordingly, reconsideration and withdrawal of the rejection is respectfully requested.

In view of the foregoing amendments and discussions, it is respectfully submitted that the present invention as defined in the pending claims is free of the prior art.

Respectfully submitted
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